

Appendix F

SSMP Audit

Sewer System Management Plan Audit Report

Calendar Years 2022 – 2024

Adapted from format developed by BACWA

Name of agency	<i>Las Gallinas Valley Sanitary District</i>	
CIWQS Collection System Name	<i>Las Gallinas CS</i>	
WDID	<i>2SSO10147</i>	
Date of audit	<i>January 14, 2025</i>	
Name of auditors	<i>Ray Goebel, P.E. (EOA, Inc.) Greg Pease (LGVSD Collection System, Maintenance & Safety Manager)</i>	
System Overview		
LF of gravity sewer mains	<i>554,400 LF (105 miles)</i>	
LF of District force mains	<i>35,500 LF (6.72 miles)**</i>	
Total LF of all District sewer lines	<i>589,000 LF (111.7 miles**)</i>	
Number of pump stations	<i>28</i>	
LF of private sewer mains, excl. laterals	<i>37,000 LF (7 miles)*</i>	
LF of private sewer laterals	<i>Est. 528,000 LF (100 miles)*</i>	
Population served	<i>~32,000</i>	
Current average monthly single family residential sewer rate	<i>\$1356/yr (\$113/mo) FY 2024/25 rate</i>	

* Source: SSMP Capacity Assessment, Nute Engr., September 2008

** Value corrected on 3/11/11

The City’s SSMP was updated in November 2024, incorporating needed updates that were identified in the February 2023 audit and also new requirements under the reissued Statewide General Order for Sanitary Sewer Systems Order WQ-2023-0103-DWQ, (General Order). Annual SSO statistics through calendar year 2024 are presented in Table 1, with selected statistics also shown graphically in Figure 1. Comments are indicated in italics. Where applicable, action items and needed SSMP revisions are indicated in italics and underline.

The audit format has been updated to reflect changes to element titles and requirements of the reissued General Order. The titles and order of headings below is based on that Order.

1. GOALS & INTRODUCTION

- Are the goals stated in the SSMP still appropriate and accurate? YES/ NO
- Are other required items of this element incorporated into Section 1 YES/ NO

The new General Order calls for additional information to be included in this in this section. The following will be added:

- *Regulatory Context*
- *SSMP Update Schedule*
- *Description of structures for diverting stormwater to the SSS, if any:*

- *Data Management Systems: Note: Information on Data Management systems that appear in other sections of the SSMP and will be described or referenced in this section.*
- *Unique conditions/challenges: No particularly unique challenges were identified during the Audit.*

2. ORGANIZATION

- Is the organization chart, contact information, and staff responsibilities for those involved in implementation of the SSMP complete and accurate? **YES/NO**
- Is the listing of LROs current? **YES/NO**
- Is information regarding the Chain of Communication for Reporting and Responding to spills accurate and up-to-date? **YES/NO**

The organization chart will be updated to reflect the most recent most recent (December 2024) version. The most current version of the org chart is always available on the District's web site at <http://www.lgvsd.org/about-us/staff/organizational-chart/> District administration maintains a current contact list for all employees, and emergency contact information for reporting spills can be quickly accessed from the District web site's at <http://www.lgvsd.org/about-us/contact-us/emergency-information/> . The District's Contingency Plan also has a listing of emergency contact numbers.

A sixth Collection System Operator position was added in FY 2022/23. The District also created the Electrical Instrumentation Technician and CMMS Technician positions, which were unfilled in 2022 but are now filled. All of the above workers are supervised by the Collection System/Maintenance/Safety Manager. District Maintenance staff provide services to both the Treatment Plant and Collection Systems.

Reporting and certification of spills in CIWQS is done by the Collection System/Maintenance/Safety Manager. However, The District plans to have both Collection Maintenance Leads be registered as data submitters.

3. LEGAL AUTHORITY

- Does the SSMP contain up-to-date information about your agency's legal authority? **YES/NO**
- Does your agency have sufficient legal authority to control sewer use and maintenance? **YES/NO**

The SSMP provides listing of the original Ordinances adopted by the District Board in numeric/chronological order, and in the format of the District's Ordinance Code, organized by titles and chapters. The Code's organization makes it easier to search for legal authority on a given topic. Although all of the legal authority items required by the current General Order are included in the Table, the table could be re-arranged and subheadings revised as part of the next SSMP revision so as to conform more closely to the Statewide Order.

4. OPERATIONS AND MAINTENANCE PROGRAM

A. COLLECTION SYSTEM MAPS

- Does the SSMP contain up-to-date information about your agency's maps? YES / NO
- Are your agency's collection system maps complete, up-to-date, and sufficiently detailed? YES / NO
- Are storm drainage facilities identified on the collection system maps? YES / NO

In 2011, the District completed development of a GIS database/mapping system for the collection system. In 2012, work was completed on reconciling data in this system with the older CAD-based map system database and the District's OASIS computerized maintenance management system (CMMS), which was formerly used to track all maintenance activities. The District now uses a more powerful Asset Management System (Cityworks AMS), which is linked to the GIS system, for both the collection system and the treatment plant. The GIS system is now the basis for collection system maps, and all routine revisions to system maps are made via the GIS system. All collection system maps are available in the field on the tablet computers used by field crew. The CAD-based maps are still used to generate CIP project drawings and affected line segments for those projects must be checked against the GIS system maps and updated if necessary. Updating of maps is an ongoing activity as new or more accurate information is generated. Updating is still being done by the consultant that configured the GIS system for the District (Centricity) but will eventually be transitioned to the District's CMMS Technician.

B. PREVENTIVE OPERATION AND MAINTENANCE ACTIVITIES

- Does the SSMP describe current preventive maintenance activities and the system for inspecting and prioritizing the cleaning of sewers? YES / NO
- Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP? YES / NO
- Considering the information in Tables 1 – 3, are your agency's preventive maintenance activities sufficient and effective in reducing and preventing spills and blockages? YES / NO

The District attributes its relatively low rate and volume of SSOs to an aggressive sewer main CCTV inspection and cleaning program. Referring to Table 1 of this audit, the District has maintained these activities at a high rate over many years. Priorities may shift somewhat from year to year (e.g. emphasis on cleaning vs CCTV inspections), but meet or exceed performance goals established in SSMP Section 4.7.

The decline in ROOT CT activity evident in Table 1 is the result of using new hydraulic methods (i.e. high pressure cleaning) for root cutting and removal. Root CT is still used for mains greater than 10-inches, but such lines comprise a relatively small fraction of the overall system. Similarly, use of the small IRO “push cameras” for CCTV has declined because most of this function can now be achieved using the robotic camera. The District will take delivery on a new Vactor truck in January 2025, at which point it will have two combination trucks.

The current cleaning frequency goals are more aggressive than listed in the SSMP. The goal for cleaning the entire system is now 1 – 1.5 years. “Hot spots” are cleaned biannually (June and December), except for the Safeway siphon and Professional Center Parkway, which are cleaned quarterly. Hotspot cleaning locations and frequencies are maintained in the CMMS.

Information on CIP projects related to system maintenance and protection of assets is provided in Section 8 of this audit report.

Update SSMP Section 4.7 goals with the current more aggressive values

C. SCHEDULED INSPECTIONS AND CONDITION ASSESSMENT

- Does the SSMP contain up-to-date information about your agency’s inspections and condition assessment? YES / NO
- Are your agency’s scheduled inspections and condition assessment system effective in locating, identifying, and addressing deficiencies? YES / NO

Information from inspections is now retained almost entirely in the CMMS an example of which included in SSMP Appendix E. Delete obsolete the “Areas of Concern” example spreadsheet in next SSMP update and update the Problem Spot Map if needed.

CCTV inspections (ITV) were scaled back in 2018-19 as the District focused on accelerated cleaning to fully populate the Cityworks AMS with cleaning data and frequencies. Although their frequency increased in late 2019, they were again scaled back in 2020/2021 as a consequence of the Covid pandemic, which limited available staffing and also the increased workload on collections staff, who took over inspections of all District pump stations from Treatment Plant staff. (Previously, Collection staff only were responsible for inspections of minor pump stations). The inspections workload was addressed through hiring of additional collections/maintenance staff.

Root CT and IRO footages were not tracked in after 2017, as the footages were small, and the equipment used has since largely been replaced by other methods.

The District conducted smoke testing through 2016, but found that the testing was no longer yielding information commensurate with the resources required, and that the public reaction to smoke testing was generally negative. For this reason, smoke testing is now done on an “as needed” basis rather than as a routine activity. The SSMP needs to be updated to reflect this change.

In addition to the maintenance footages listed in Table 1, in 2019 the District contracted with Miksis Services Inc to perform cleaning, CCTV inspections, and assessment of five main line undercrossings of highway US101. The inspections revealed several structural deficiencies, some of which were addressed through “spot repairs”. Others will require capital projects (i.e., installation of CIPP-type liner) to fully address. A relining of the Marinwood line undercrossing was completed in 2019.

The SSMPs description of inspection methods should be expanded to include a description of the Districts 360-degree camera for manhole inspections and the goal of putting every manhole through a “level 2” inspection over a period of years.

D. TRAINING

- Does the SSMP contain up-to-date information about your agency’s training expectations and programs? YES / NO
- Do managers believe that their staff is sufficiently trained? YES / NO
- Are staff satisfied with the training opportunities and support offered to them? YES / NO

The District’s Camera Crew and the two Maintenance Crews (pump stations and collection system) are cross-trained and crew members are regularly rotated through the three crews.

The District encourages crew staff to acquire and advance CWEA certification levels. Crew certification information is provided in the SSMP.

The District’s in-house training program was largely suspended in 2020-21 as a consequence of the Covid pandemic, when gatherings for training was deemed unsafe. In-house training resumed at the end of 2021.

The SSMP’s section on training needs updating to reflect current training schedules (e.g., spill volume estimation is no longer conducted annually because most collection crew staff are long-term employees, and are well versed in volume estimation methods. However, the two new crew members are receiving both internal and external training in volume estimation).

E. CONTINGENCY EQUIPMENT AND REPLACEMENT INVENTORIES

- Does the SSMP contain up-to-date information about equipment and replacement inventories? YES / NO
- Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance? YES / NO

The list of emergency equipment was reviewed and determined to be complete. The inventory of emergency equipment is also maintained in the District’s NPDES Contingency Plan, and is periodically updated.

F. RESOURCES AND BUDGET

- Does the SSMP contain up-to-date information about your agency's resources and budget? YES / NO
- Are your agency's resources and budget sufficient to support effective sewer system management? YES / NO
- Do your agency's planning efforts support long-term goals? YES / NO

Information on current and future years' budgets are posted on the District web site at <https://www.lgvsd.org/finance-and-budget>. SSMP Table 8-1 has the original Engineer's estimates for the proposed capacity-related projects. SSMP Table 8.2 shows the status of various projects as of the end of 2019. Certain projects on that listing have been re-prioritized or delayed for various reasons, although funding generally carries over until the project is implemented. Results from the current Integrated Wastewater Master Plan and other efforts undertaken in recent years may revisit some of the projects listed in SSMP Table 8.1 based on new information or evolving strategies. Refer to Section 8 of this audit for addition information on CIP projects and budgets.

Review and revise SSMP Tables 8.1 and 8.2 based on more recent planning and capacity assessment efforts.

Table 1. Annual Preventive Maintenance Activities Summary

Maintenance activities (lineal ft/yr)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
ITV (Camera truck)	180,115	132,539	84,343	62,396	195,816	152,299	84,326	70,046	169,111	143,501	94,911	2,816	34,840	44,354	2,429	6,263	162,304	168,517
CJET (Flushing with camera truck)	199,854	221,987	230,971	274,221	210,158	232,761	242,223	203,364	219,583	249,475	179,853	200,609	136,952	102,421	163,795	213,684	217,802	229,358
CJET2 or CLEAN (Flushing with flusher truck)	142,942	114,539	97,508	97,665	90,820	94,603	104,553	113,909	107,986	122,345	89,952	202,500	228,494	161,551	258,076	190,109	270,613	238,780
ROOTCT (Rodding)	56,170	73,884	78,080	68,103	72,718	70,283	67,311	60,607	68,231	76,703	72,728	27,683	*	*	5,665	0	0	0
IRO (TVing with push camera)	52,842	54,281	47,225	33,459	27,039	11,994	7,194	4,723	8,298	5,632	7,545	2,456	*	*	*	0	0	0
SMOKE (Smoke testing)	85,019	0*	80,305	65,757	0	0	15,990	21,941	12,607	50,000	0	0	0	0	0	0	0	0
IAG (Above-ground inspection)								209	3,665	5,375	5,268	864		0	0	3,046	849	106

* Footages in 2019 were low and not tracked in Cityworks as this equipment was being phased out in favor of other methods.

G. OUTREACH TO PLUMBERS AND BUILDING CONTRACTORS

- Does the SSMP contain up-to-date information about your agency’s outreach to plumbers and building contractors? YES NO
- Has your agency conducted or participated in any outreach activities to plumbers and building contractors? YES NO

The District continues to email local plumbers and sewer contractors periodically and issue permits for work performed by plumbers and contractors that could impact District facilities. The number of permits issued over time is shown in Figure 1. The permit process includes inspection by District staff. The mailing list is kept current by adding any plumber or contractor to whom a permit is issued. The number of permits issued peaked in 2015, likely reflecting the impact of the multi-year drought, as tree roots more aggressively invaded sewer lines in search of water. Another factor in year-to-year variability in the number of permits is the City of San Rafael’s street paving schedule. The City has a 5-year moratorium on “trench cuts” following street resurfacing. During that time, the City does not permit trench cuts to be patched, but instead requires curb-to-curb resurfacing for 20-feet on either side of the trench cut. This adds significantly to lateral replacement costs and discourages such replacement during the moratorium period. The City sends a notification letter to residences in advance of resurfacing, which may result in an increase in lateral replacements before, and a decline in replacements during the moratorium period.

The SSMP section on contractor outreach needs minor updating to indicate the actual frequency of outreach communication. Also, the District no longer provides a “short form” but rather directs plumbers to an [online fillable form](#) on the District web site.

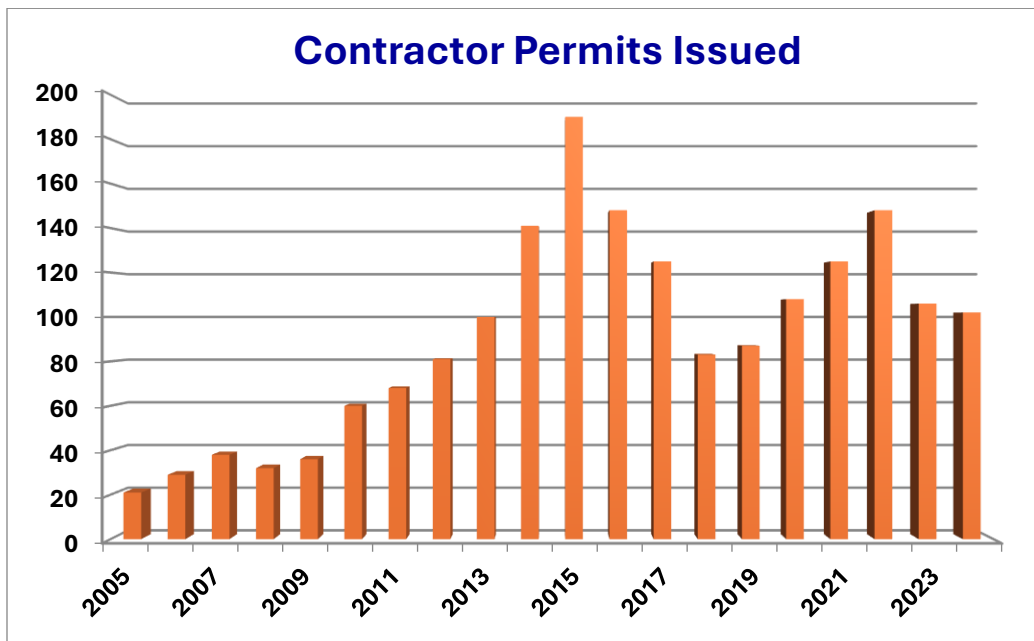


Figure 1. Number of Permits Issued to Plumbers for Work that Could Impact District Facilities

5. DESIGN AND CONSTRUCTION STANDARDS

- Does the SSMP contain up-to-date information about your agency's design and construction standards? YES / NO
- Are design and construction standards, as well as standards for inspection and testing of new and rehabilitated facilities sufficiently comprehensive and up-to-date? YES / NO

Construction standards for sewer mains were developed jointly with other Marin Co. collection system agencies and adopted in 2000. The use of uniform County-wide construction standards has certain advantages, but places constraints on the ease such standards can be revised. Nevertheless, recognizing the need to adopt newer, more effective technologies to control I&I, the District has in recent years incorporated improved designs for pipe-to-manhole connections, manhole cover ring seals, and certain other details into the design of its sewer rehabilitation projects.

The District has contracted with the engineering firm Hazen & Sawyer to review and update District's other Standard Specifications and Drawings. That effort was approximately 50% completed as of November 2024.

In 2018, the District teamed with the City of San Rafael District to update the standards for sewer laterals. The resulting "Uniform LGVSD-SRSD Standard Specifications for Lateral Sewers" was adopted by the District Board on August 1, 2019. The new standards are available on the District's web site. The new standards will be included in Appendix B of the SSMP, which will be widened to include both FOG lateral-related ordinances and other document.

6. SPILL EMERGENCY RESPONSE PLAN

- Does the SSMP contain an up-to-date version of your agency's Spill Emergency Response Plan? YES / NO
- Considering the information in Table 1, is the Spill Emergency Response Plan effective in handling Spills? YES / NO

As of the end of 2021, the SSMP contained the current Spill Emergency Response Plan. However, the Plan was updated in 2022 and will be incorporated into the SSMP during the next (2025) update. The 2022 SERP is now in use.

All emergency response is performed by District staff. The October 2013 SSMP Update included updated information on monitoring, reporting and sampling requirements resulting from Order 2013-0058-EXEC (revised MRP). It also included a Monitoring Plan for spills exceeding 50,000 gallons and a revised "SOP for Water Quality Sampling" in Section 3.3 for which minor revisions were made as part of the 2020 update. The 2020

Monitoring Plan needs to be rechecked to ensure that it reflects any new requirements of the reissued General Order.¹

In Table 1, the categories for “Number of SSO (by cause) were expanded to include more (but not all) of the “Spill Cause” choices in CIWQS.

See section 8 for a discussion of trends indicated in Table 2 and Figures 2-4.

In January 2015, individual SSO Emergency Response Plans were finalized for 26 of the District’s Pump Stations. Each Plan contains the following sections:

<i>Pump Station Technical Information</i>	<i>Hazards and Cautions</i>
<i>Pump Station Network</i>	<i>Overflow Decision Tree</i>
<i>Overflow Decision Tree Guide</i>	<i>Spill Notification Procedures</i>
<i>Spill Containment</i>	<i>Pump Station Power Map</i>
<i>Pump Station Control System</i>	<i>Lockout/Tagout Procedures</i>
<i>Generator Operation</i>	<i>Contact Information</i>
<i>System Map Pages</i>	

Two of the three SSOs in 2021 occurred during the October 24 extreme storm that was characterized as a 50-100 year event. Because the siphon where the primary SSO occurred is a known bottleneck in the system, District staff were on site at the time, even though it was not during normal business hours.

¹ The new General Order incorporates spill monitoring requirements into Sections 6 of the Order (SERP), rather than calling for a separate Monitoring Plan. However, the District plans to retain the Monitoring Plan as a separate document attached to the SERP.

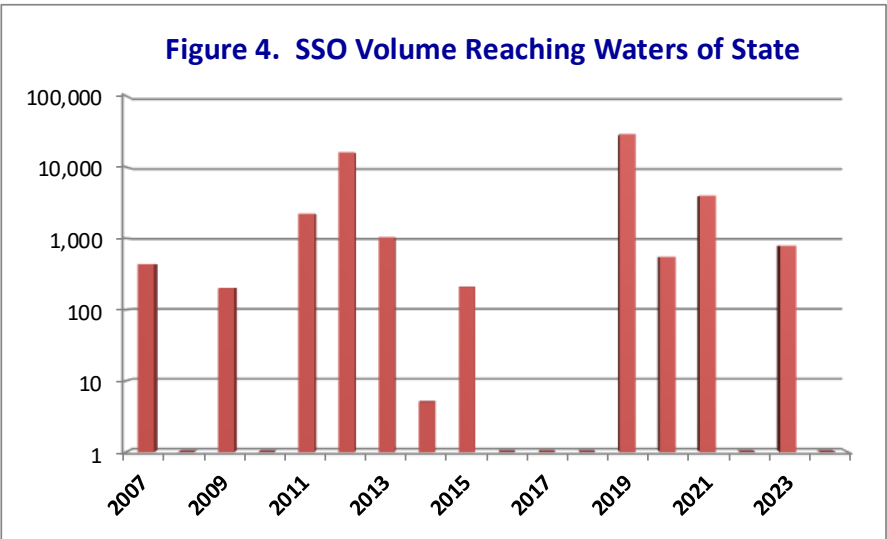
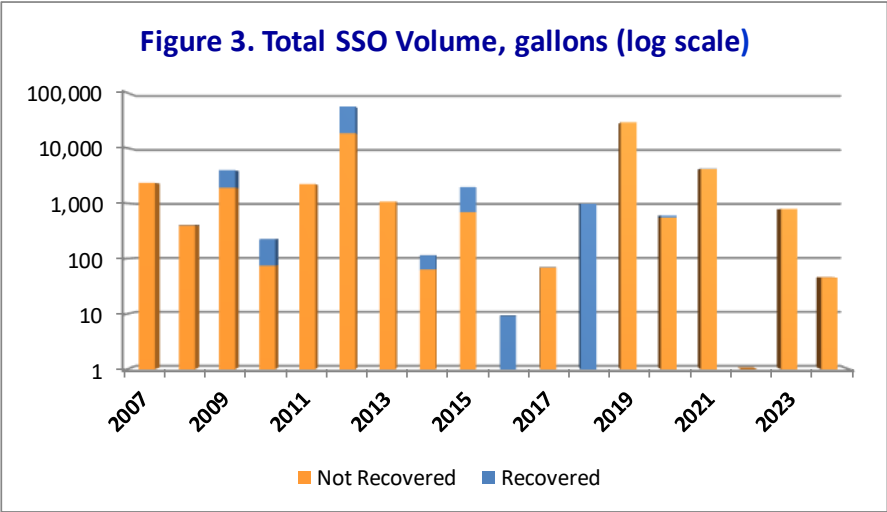
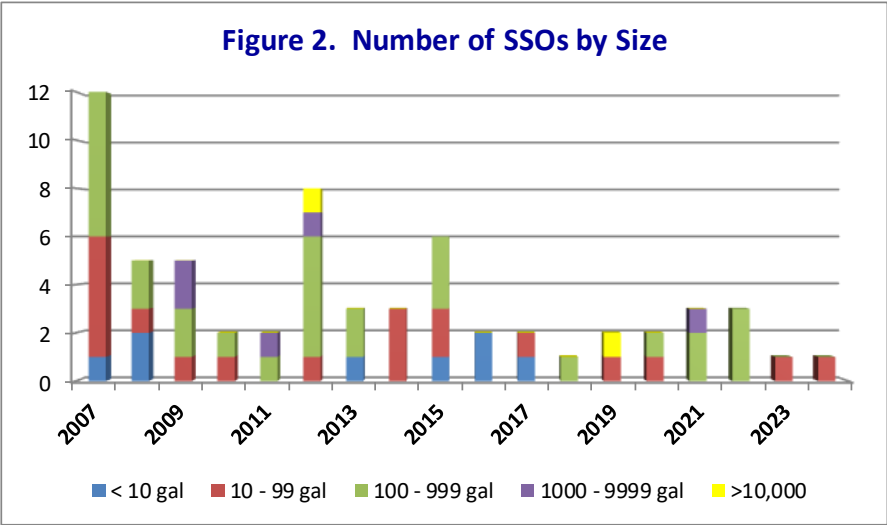
Table 2. Annual SSO Statistics

Indicator	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of SSOs (total)	12	5	5	2	2	8	3	3	6	2	2	1	2	2	3	4	2	2
Wet season SSOs*	7	2	1	2	1	5	1	2	3	2	1	0	1	1	3	2	2	0
Dry season SSOs*	5	3	4	0	1	3	2	1	3	0	1	1	1	1	0**	2	0	2
Number of SSOs (by volume range)																		
< 10 gal	1	2	0	0	0	0	1	0	1	2	1	0	0	0	0	1	0	1
10 – 99 gal	5	1	1	1	0	1	0	3	2	0	1	0	1	1	0	0	1	1
100 – 999 gal	6	2	2	1	1	5	2	0	3	0	0	1	0	1	2	3	0	0
1000 – 9999 gal	0	0	2	0	1	1	0	0	0	0	0	0	0	0	1	0	1	0
≥10,000 gal	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
Total SSO Volume, gal (A)	2337	409	3955	225	2220	56190	1073	114	1964	9	69	975	29080	601	4238	710	1485	45
Vol. reaching waters of the State, gal (B)	435	0	200	0	2220	16100	1035	5	210	0	0	0	0	550	3975	0	789	0
Vol. not contained but not reaching waters of the State, gal (A-B-C)	1,899	400	1713	75	0	2352	38	59	485	0	69	0	0	1	193	0	0	45
Vol. recovered, gal (C)	3	9	2042	150	0	37738	0	50	1269	9	0	975	80	51	70	710	696	0
Net vol. (total - recovered, gal) (A-C)	2334	400	1913	75	2220	18452	1073	64	695	0	69	0	29000	550	4168	0	789	45
Number of SSOs per 100 mile of sewer/year	10.7	4.5	4.5	1.8	1.8	7.2	2.7	2.7	5.4	1.8	1.8	0.9	1.8	1.8	2.7	3.6	1.8	01.8
Volume of SSOs per 100 mile of sewer/year	2092	366	3541	201	1987	50304	961	102	1758	8.1	62	873	26034	538	3794	636	1329	40
Total Volume conveyed to the plant (mgal)	944	1067	1036	1158	968	1027	849	916	773	990	1130	882	1157	779	844	759	1074	1056
Total volume SSO / Total volume conveyed, gallons / million gallons	2.35	0.383	3.82	0.19	2.29	54.7	1.26	0.124	1.64	0.009	0.061	1.11	25.1	0.8	5.0	0.9	1.4	0.043
Number of SSO (by cause)																		
Blockages:																		
Roots	6	2	1	1	1	2	3	3	2	2	1			2	1	1		1
Grease	2			1					3				1			1		
Debris	3	1	1			3												
Debris from Laterals												1						
Debris – Rags (added 2014)									1					1				
Debris - Construction																1	1	
Other (added 2014)																		
Multiple causes																	1	

Indicator	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Infrastructure failure,	1	1	3			1					1					1		1
Inflow & Infiltration					1	2							1		2			
Electrical Power Failure		1																
Flow Capacity Deficiency																		
Natural Disaster																		
Bypass																		
Cause Unknown																		
Avg. Emergency Response Times, minutes																		
Business Hours																		
Notification to arrival on site	19.3	5.5	11.8	17	5	8.7	2.5	12.5	16.5	19	8	7	6	5	N/A			
Notification to complete clearance	35.7	13	50.4	30	47	51.3	17.5	30	20.5	28	8	8	N/A	5	N/A			
Non-business hours																		
Notification to arrival on site	28.7	30	N/A	30	45	14	25	60	27	45	46	N/A	0	N/A	21			
Notification to complete clearance	202	35	N/A	60	70	25	40	70.5	39	59	66	N/A	274	N/A	88			
Number of locations with multiple SSOs	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

* Wet season defined as Nov-April, dry season May-Oct. Season does not necessarily reflect conditions at the time of the SSO. For example, in 2007 all but one wet season SSOs occurred during dry conditions.

** Two SSOs on Oct 24 during extreme wet conditions.



7. BLOCKAGE CONTROL PLAN

Table 3. FOG Control Statistics

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of SSOs caused by FOG	2	0	0	0	1	0	0	0	3*	0	0	0	1	0	0	1	0	0
Number of FOG inspections completed	-	68	24	28	25	63	59	71	82	20	30	28	66		>47			

*Multiple causes- FOG and debris

- Does the SSMP contain up-to-date information about your agency's Blockage Control Program? **YES / NO**
- Does the Blockage Control Program include efforts to educate the public on proper handling and disposal of FOG and other materials that could cause sewer blockages?? **YES / NO**
- Does the Blockage Control Program identify sections of the collection system subject to blockages, establish a cleaning schedule and address source control measures to minimize these blockages? **YES / NO**
- Are requirements for grease removal devices, best management practices (BMP), record keeping and reporting established in the City's FOG Control Program? **YES / NO**
- Considering the information in Table 2, is the current blockage program effective in documenting and controlling FOG and other blockage sources? **YES / NO**

The new General Order changed the focus of Element 8 from FOG-only to blockages more generally. The SSMP needs to be updated to reflect this change.

With respect to FOG, Table 1 indicates that the number of FOG-related spills is low. This can be attributed to the District's aggressive cleaning schedule, and to the FOG Control Program's source control requirements and its inspection program, backed by the District's FOG Ordinance and other legal authorities as listed in Section 3.

The SSMP has an example printout from the FOG database used to track FSE inspections and compliance with Program requirements. FOG Program activities are also described in the District's Annual Pollution Prevention Reports.

The number of spills attributed to roots is also relatively low, again as a result of the District's aggressive cleaning program. Historically, spills have also been attributed to debris (both from construction and from rags/wipes). Spills from these sources more sporadic and are more difficult to control than those cause by FOG or roots. The District has included information regarding proper disposal of wipes in its public outreach efforts.

The CMMS has a layer of “hot spot” locations that have the potential for reoccurring spills or that have historically experience spills from FOG, roots or debris. These areas are on an accelerated cleaning schedule.

8. SYSTEM EVALUATION ASSURANCE AND CAPITAL IMPROVEMENTS

- Does the SSMP contain up-to-date information about your agency’s capacity assessment? **YES / NO**
- Has your agency completed a capacity assessment and identified and addressed any hydraulic deficiencies in the system? **YES / NO**
- Does the SSMP have information related to its prioritized capacity enhancement and capital improvement projects? **YES / NO**
- Does the SSMP address all items required under this element including resilience issues related to climate change? **YES / NO**

As indicated in Table 5, the District has experienced relatively few capacity-related spills. (In addition to those spills attributed to Flow Capacity Deficiency, spills attributed to Excessive I&I can be considered capacity -related). Potential hydraulic capacity limitations for a 20-year design storm and a plan for addressing these limitations were identified in the Capacity Assessment Report and addressed in a CIP schedule. In 2009, the District Board approved a 5-year schedule of sewer rate increases to provide funding for the Treatment Plant and Collection System CIPs, including projects specifically related to potential capacity limitations. The 2015, 2022, and 2023 multi-year rate increases continued funding for these and other CIP projects.

A number of the key capacity-related line segments have already been addressed. The most important remaining capacity-related segment (a main line inverted siphon that has been the source of spills) has not been fully addressed, although two projects partially addressed the problem: 1) the Terra Linda-Northgate Relief Sewer project, provided an alternative flow path for a portion of the flow, reducing peak flow through the siphon, and 2) the Siphon Outlet Improvements project improved flow conditions on the downstream side of the siphon. Nevertheless, the siphon remains a potential bottleneck in the system and is carefully monitored by the collections crew during storm events. The siphon is at a location that is highly constrained spatially and presents significant construction challenges, but will be addressed as part of the Upper Terra Linda Trunk Sewer and Siphon Improvements Project (see below).

The following is information on key recent and CIP Projects related to infrastructure maintenance: Not all projects undertaken by the District are listed.

- *The \$2.4 million 2016 Main Rehabilitation Project, completed in 2017, replaced 6,870 ft of 8” – 24” mains, ~1800 ft of associated lower laterals, plus 49 manholes. The project included improvements to the Freitas Siphon outlet, a location of historic SSOs.*
- *The \$1.3 million 2018 Sewer Improvements Project, completed in 2019, included rehabilitation of 2,626 LF of sewer mains, 19 manholes and rod holes, and replacement of approximately 24 lower laterals.*

- *The ~0.4 million 2020 Sewer Improvements Project, focused on the force main system. The project included: 1) repair or replacement of air relief valves (ARVs,) identified as a key vulnerability of that system, 2) improved mapping of all FMs, and 3) replacement of signage and other system components as needed.*
- *The \$0.5 million Duckett Pump Station Force Main Access Structure Project provided two manhole structures to access the force main for inspection and cleaning. The Duckett force main is the primary means for transmitting flow to the treatment plant.*
- *The ~\$3 million 2023-24 Sewer Main Rehabilitation Project, currently in construction, is rehabilitat or replacing 5000+ feet of 6-inch and 8-inch sewer mains and trunk sewers, ~30 manholes with lining method, ~8 rodding inlets, and ~103 lower laterals. The project addressed most of the collection system's line segments that had a PACP condition rating of 4 or 5 as documented in the CMMS. The segments are located throughout the District.*
- *A ~\$0.5 million design effort is currently in progress to address improvements needed at the Duckett Pump Station. The improvements will include miscellaneous valve and piping, gantry crane and electrical system upgrades, and structural lining of the Hwy 101 and Gallinas Creek trunk sewer under crossings.*
- *\$4.5 million has been allocated in the FY 25-26 and 26-27 budgets for the Upper Terra Linda Trunk Sewer and Siphon Improvements Project, including upsizing of the inverted siphon under the creek, replacement of the siphon inlet and outlet structures, and upsizing of one pipeline section before and after the siphon structures.*
- *In addition to budgets allocated for specific future projects such as the Upper Terra Linda Trunk Sewer and Siphon Improvements, approximately \$1.5 million/year is budgeted for future general sewer rehab and I&I reduction projects. ed*

Information on the Districts current and future plans related to disaster resilience needs to be incorporated directly and/or by reference. Sources of this information will include but are not limited to:

- *Projects undertaken at the treatment plant to reduce risk of flooding*
- *The Climate Change and Sea Level Rise Assessment by ESA*
- *The District's 7-yr projected CIP budgets*
- *Phase II of the District's Integrated Wastewater Master Plan (still in progress), Technical memoranda on Disaster Resilience*
- *Relevant planning and projects being undertaken by the County and other agencies to address flooding and wildfire*

Update SSMP Table 8.2 with current information on implementation of capacity related projects.

9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

- Does the SSMP contain up-to-date information about your agency's data collection and organization? YES / NO
- Is your agency's data collection and organization sufficient to evaluate the effectiveness of your SSMP? YES / NO

The District believes that the current performance indicators (Table 2, Figures 2-4) and tracking of preventative maintenance activities (Table 1) are sufficient to evaluate effectiveness of the SSMP in minimizing spills. The number of spills has been relatively low because of an aggressive O&M program, although some year-to-year variability is inevitable, and any single spill can significantly impact certain metrics and trends.

10. SSMP AUDITS

- Will the SSMP Audit be conducted a minimum of every three years and included in the SSMP? YES / NO

The audits will be conducted every three years in accordance with the schedule on the SWRCB web site. Audit reports will be uploaded into CIWQS. A copy of this audit will be included in Appendix F of the SSMP.

11. COMMUNICATION PROGRAM

- Does the SSMP contain up-to-date information about your agency's public outreach activities? YES / NO
- Does the SSMP contain up-to-date information about your agency's communications with satellite and tributary agencies? YES / NO
- Has your agency effectively communicated with the public and other agencies about the SSMP, and addressed feedback? YES / NO
- Has Oper input on the audit findings been considered? YES / NO

As part of the communication program, the entire SSMP is posted on the District's web site (www.lgvsd.org), with an invitation for customers to provide feedback. Public outreach activities are described in the SSMP and the District's Annual Pollution Prevention Program reports. The District also conducts public workshops to solicit public input for proposed changes to sewer rates or the rate structures. The District produces a quarterly newsletter (The Heron) which is mailed to customers in its service area. Both the newsletter and the web site feature outreach information relevant to the SSMP (e.g. proper disposal of wipes and FOG, importance of I&I reduction).

Operator input on audit findings is addressed through regular communication between Collections Supervisor and his crew.

12. APPROVAL AND CERTIFICATION

- Has the SSMP been updated and recertified in accordance with the requirements of the Statewide Order?

YES / NO

The SSMP was revised in October 2013 and recertified by the District Board in January 2014. Minor updates were made to the document in June 2016 following the 2014-2015 audit. Additional minor changes/updates were made following the 2016-2017 audit. In both cases, because changes were not considered significant, the SSMP was not recertified. Although the May 2020 updates were again relatively minor, the May 2020 SSMP was recertified by the District Board at the 10/15/2020 Board meeting (Resolution 2020-2201). The next (2025) SSMP update will be presented to the District Board for certification and submitted in CIWQS by the August 2, 2025 due date.

13 SSMP Appendices:

Various reference documents that are included in the SSMP Appendices are now obsolete can be removed. Other documents (e.g., the copy of the General Order, example District reports) can be replaced with updated versions.